REGULATION FILING AND PUBLICATION

1. Regulation Chapter Number and Heading:

   520 C.M.R. 6.00

2. Name of Agency:

   Department of Public Safety

3. This document is reprinted from the Code of Massachusetts Regulations and contains the following:

520 C.M.R. 6.01	General Provisions, Definitions
520 C.M.R. 6.02	Applications, Requirements and Denials
520 C.M.R. 6.03	Continuing Education/License Renewal
520 C.M.R. 6.04	Apprentice Licenses; Training Facilities
520 C.M.R. 6.05	Public Utilities
520 C.M.R. 6.06	Operating Procedures
520 C.M.R. 6.07	Requirements for Specific Machinery
520 C.M.R. 6.08	Classification and Qualifications
520 C.M.R. 6.09	Special Requirements
520 C.M.R. 6.10	License Suspension, Revocation and Appeals

520 CMR 6.00: HOISTING MACHINERY

6.01: General provisions, scope, definitions, standards adopted

(1) Scope. 520 CMR 6.00 is promulgated by the Department of Public Safety pursuant to authority granted by M.G.L. c. 146, §53

The purpose of 520 CMR 6.00 is to establish reasonable requirements to protect the public safety of the citizens of the Commonwealth from the hazards inherent in the operation of hoisting equipment by establishing the minimum standards necessary to obtain a hoisting machinery operator's license and the minimum safety standards to be followed during the operation of hoisting machinery.

520 CMR 6.00 shall apply to:

(a) Hoisting machinery as defined in 520 CMR 6.01 that is used on private or public property for the erection, construction, alteration, demolition, repair or maintenance of buildings, structures, bridges, highways, roadways, dams, tunnels, sewers, underground building or structures, underground pipelines or ducts and all other construction projects or facilities or other uses on private or public grounds including the warehousing and movement of materials, except when being used for agriculture.

(b) Hoisting machinery that has the minimum capability of hoisting the load higher than ten feet or that has the capability of lifting loads greater than 500 pounds or if the capacity of the bucket may exceed 1/4 cubic yard capacity.

(c) Hoisting machinery including derricks, cableways, machinery used for discharging cargoes, temporary elevator cars used on excavation work or machinery used for hoisting building material where the motive power to operate such machinery is mechanical and other than steam, including but not limited to excavators, backhoes, front end loaders, uni-loaders, skid loader, skid steer loaders, compact loaders or similar devices, lattice cranes, derricks, cranes with telescoping booms with cables, equipment with telescoping booms without cables, all forklifts that have the ability of exceeding any of the criteria listed in 520 CMR 6.01 (1)(b), overhead bridge cranes, electric or air driven hoists, pendant controlled hoists with a rating of 2 ton capacity or greater, specialty equipment as categorized by license grade in this regulation.

(2) Definitions. The following words and terms, when used in 524 CMR 6.00 shall have the following meanings unless the context clearly indicates otherwise or the term is redefined for a specific section or purpose.

Apprentice License. A certification issued by the Department. upon proof of registration at a training facility and with the Department of Labor and Workforce Development which enables the holder to operate hoisting machinery under the direct guidance and supervision of a duly licensed person licensed to operate the category of hoisting machinery for which certification is issued.

Apprentice Licensee. A person who is at least 18 years of age, holds a valid driver's

license, is registered with the Department of Labor and Workforce Development, and has obtained an apprentice license to operate hoisting machinery while under the direct guidance and supervision of a duly licensed person.

Cargo. A load, quantity, or volume that can be processed or transported at one time.

CCO. Certificate of Crane Operation issued by a National Commission for the Certification of Crane Operators-accredited practical examiner following the satisfactory completion of a practical exam.

Certificate of Completion. A uniform certificate issued by a training facility to a licensee upon the satisfactory completion of a continuing education curriculum.

Chief. The Chief of Inspections – Mechanical of the Department of Public Safety

Commissioner. The Commissioner of the Department of Public Safety.

Competent Person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate such conditions.

Department. The Department of Public Safety.

Direct Guidance. In-device instruction and observation of apprentice licensees provided under the supervision of a duly licensed individual engaged in the education of apprentice licensees on the operation of hoisting machinery.

DOT. The United States Department of Transportation.

Emergency Procedure. Actions required to be taken during urgent situations to prevent damage to life or property, or to ensure public safety

Fork Lift. A power-driven truck characterized by prongs projecting from the vehicle's front that enable the vehicle to lift, travel and stack cargo at a height. May also be referred to as a forklift truck, fork truck, or power industrial truck.

Hoisting Equipment. See "Hoisting Machinery."

Hoisting Machinery. A device intended to raise, lower, suspend or support cargo.

Injury. Sustained bodily harm resulting in treatment such as trauma, cuts, bruises, burns, and sprains.

Injury and Incident Documentation. A form detailing all specific information regarding any injury or incident that may have occurred.

Instructor. An individual duly licensed by the Department as a hoisting machinery operator who educates and trains licensees and apprentice licensees in the operation of

hoisting machinery
License. A certificate issued by the Department to an individual evidencing permission to operate hoisting machinery.

Licensee. A person who is at least 18 years old, holds a valid driver's license and has completed the necessary requisites for licensure to operate hoisting machinery.

Mechanical Failure. Major damage to hoisting machinery.

Modification. Alterations, extensions or repairs made to hoisting machinery which alter the machinery's original structure.

Operator's Manual. The document created by the manufacturer of the machinery that contains the required procedures and forms for the safe operation of hoisting machinery at the stated site pertaining to that specific equipment.

Placard. Certificate posted on hoisting machinery which acts as a notice of the unsafe condition of the machinery.

S.A.E. The Society of Automotive Engineers.

Serious Injury. A personal injury/illness that results in death, dismemberment, significant disfigurement, permanent loss of the use of a body organ, member, function, or system, a compound fracture, or other significant injury/illness that requires immediate admission and overnight hospitalization and observation by a licensed physician.

Signal Person. A trained individual specially appointed by the operator to direct the operator of hoisting machinery and warn of possible or existing hazards through the use of hand signals or flashing lights. (See Appendix A)

State Inspector. An inspector of the Department of Public Safety.

Training Facility. A site, including buildings and machinery located thereon, that has been approved by the Department to train apprentice licensees in the safe operation of hoisting equipment and may also provide courses in continuing education for individuals licensed to operate hoisting equipment.

Training Period. Time during which an apprentice licensee participates in a training program on-site at a training facility.

(3) Standards Adopted. The standard for operation of hoisting machinery shall be in accordance with the following:
ANSI B30.2-(2001) Overhead Cranes
ANSI B30.3-2004 Construction Tower Cranes
ANSI B30.5 – 2004 Mobile and Locomotive Cranes
ANSI B30.9 – 2003 Slings
ANSI B30.10 – 2005 Hooks
ANSI B 30.20 – 2006 Below the Hook Lifting Devices
ANSI B30.22 – 2005 Articulating Boom Cranes

ANSI B30.26 – 2004 Rigging Hardware
The Occupational Safety and Health Administration (OSHA) Regulations 29 CFR 1926 and 29 CFR 1910.

In the event that any provision therein conflicts with a provision of 520 CMR 6.00, 520 CMR 6.00 shall govern.

6.02: General Administrative Provisions

(1) Scope. 520 CMR 6.00 establishes general administrative provisions including license issuance, fees, inspections, and variances for all hoisting machinery.

(2) General requirements for licensure

(a) All applicants must be at least 18 of years of age.

(b) All applicants must possess a valid driver's license to operate a motor vehicle.

(c) All applicants must submit the following required documentation:

1. A complete application to operate hoisting machinery as provided by the Department;
2. A fee to be determined annually by the Secretary of Administration and Finance under the provisions of M.G.L. c. 7, §3B;
3. D.O.T. certificate documentation that they meet the criteria for a D.O.T. medical examination or 2004 ANSI B30.5 qualifications for operators;
4. A photograph; and
5. A legible photocopy of the applicant's valid driver's license.

(d) All applicants for a license to operate hoisting machinery other than an apprentice license shall pass a written examination administered by the Department by earning a minimum grade of 70% and must demonstrate knowledge of the following:

1. the operation of the equipment for which they are being examined;
2. ability to comprehend and interpret all placards, operation manuals, safety codes and other information pertinent to safe hoisting operations;
3. the English language;
4. emergency procedures;
5. Massachusetts General Laws and regulations as they relate to hoisting equipment.

(e) Individuals receiving a failing score may not retake an examination for a license to operate hoisting machinery within ninety (90) days of the previous examination.

(f) Applicants may only be examined for one hoisting category per exam, but may apply for multiple exams using separate applications and fees.

(g) In addition to the written examination, applicants for licensure to operate hoisting machinery may be required to pass a practical examination at the discretion of the Department for the specific type of equipment for which they have applied to operate. Applicants taking the practical examination must:

1. Demonstrate the ability to operate the equipment for which they are being examined.
2. Demonstrate the ability to comprehend and interpret all placards, operators' manuals, safety codes and other information pertinent to safe hoisting operations.
3. Demonstrate the ability to communicate in English.
4. Demonstrate knowledge of emergency procedures.
5. Demonstrate knowledge of applicable Massachusetts General Laws and regulations as they relate to hoisting equipment.

(h) Hoisting licenses shall be carried on the person of the operator during all times the operator is operating hoisting machinery and shall be furnished for inspection by the operator at the request of an authorized individual.

(i) All applicants for renewal licensure shall submit a certificate of completion evidencing the satisfaction of continuing education hours required pursuant to 520 CMR 6.03

(3) License renewals.

(a) Apprentice Licenses shall be valid for the term of registration. Apprentice Licenses may be renewed upon the submission of proof that the Apprentice Licensee remains registered with the Division of Apprentice Training of the Department of Labor and Workforce Development.

(b) All other applicants for hoisting machinery license renewals shall submit the following:

1. A legible photocopy of a valid driver's license;
2. A complete application for renewal of a license to operate hoisting machinery as provided by the Department;
3. A fee to be determined annually by the Secretary of Administration and Finance under the provisions of M.G.L. c. 7, §3B;
4. D.O.T. certificate of documentation that the applicant meets the criteria for a D.O.T. medical examination or 2004 ANSI B30.5 qualifications for operators; and
5. A certificate of completion.
6. A photograph.

(4) Denial; appeals

(a) The Department may refuse to issue a license to an applicant based on the following grounds:

1. Submittal of an incomplete application or submittal of an application on a form not authorized by the Department;
2. Failure to submit required fees;
3. Submittal of false, invalid, incorrect or fraudulent information;
4. Failure to pass a practical examination (if required);
5. If at the time of application, the applicant is under investigation by the Department;
6. Failure to pass the required written examination.

(b) If the Department refuses to issue a license based upon any of the reasons set forth in 6.02(4) (a)1-6 , they shall notify the applicant in writing, setting forth

the reasons for the denial. Within 21 days of receipt of the denial, the applicant may make written demand upon the Chief of Inspections--Mechanical for a hearing before a board of appeals consisting of three Department inspectors appointed by the Chief of Inspections--Mechanical or the Chief of Inspections-Mechanical and two inspectors. The hearing shall be held promptly and in accordance with M.G.L. c. 30A and 801 CMR 1.02.

(c) Failure to Pass Examination:
The results of the written examination shall be posted on the Department's website (www.mass.gov/dps). If an applicant receives a failing score and the Department refuses to issue a license based upon 6.02(4)(a)6, the applicant may make written demand upon the Chief for a hearing. The written demand must be submitted within 21 days of the examination score being posted on the website. The hearing shall be held before a board of appeals consisting of three Department inspectors appointed by the Chief or the Chief and two inspectors. The hearing shall be held promptly and in accordance with M.G.L.c. 30A and 801 CMR 1.02.

(d) If, after a hearing, the Chief denies the issuance of the license, he shall notify the applicant in writing. Such notice shall be sent by certified mail and/or first class mail and shall contain the reasons supporting the denial. Within 30 days after receipt of the notice, the applicant may appeal such denial to Superior Court in accordance with M.G.L. c. 30A, § 14.

6.03: Continuing education and training facilities; license renewal; requirements; expiration

(1) Continuing Education and Training Facilities.

(a) Approval by Department

1. All individuals or organizations seeking approval to operate as a training facility that offers one or more continuing education course(s) shall submit, for the Department's approval, a copy of all curriculum, training materials, certificates of completion to be used by the facility, and a list including the names and Massachusetts hoisting machinery license numbers of all instructors. Curriculum must contain the minimum topics and associated hours for those topics as listed in 520 CMR 6.03(1) (b)(5).

(b) The following provisions are required in order for any institution or organization to have their continuing education program considered for approval:

1. A copy of all curriculum, training material, and certificate of completion to be used must be provided to the Department.
2. Curriculum must contain the minimum topics and associated hours for those topics as listed in 520 CMR 6.03 (1)(b)(5).
3. All courses must be monitored by a Massachusetts Hoisting Licensee of equal or greater grade of Massachusetts license, who will verify by their signature on the certificate of completion, that all those issued a certificate

of completion have fully participated in the program for which they have been issued a certificate.

4. Instructors many receive continuing education credits for providing instruction, however instructors shall only be credited hours for the actual non-redundant time that they have spent actively participating in the instruction of the program.

5. Method of Verification. Each program must provide a means to ensure certificate authenticity. Such means shall include, but not be limited to:

    a) School embossment of certificate

    b) Computer data transfer of program participants

    c) Signature verification

    d) Numbered certificates

6. Curriculum. Continuing education programs approved by the Department shall offer a curriculum that, at a minimum, complies with the following requirements for each associated class of Hoisting Equipment licensure:

    a) Class 1 (Hoisting) Licenses:

        1. The minimum number of continuing education hours required for renewal of a 1A, 1B, 1C or 1D license shall be four (4) classroom hours.

        2. The minimum topics and texts included as part of the continuing education curriculum for purposes of renewing a 1A, 1B, 1C, or 1D license shall include but may not be limited to:

            a. MGL c. 146;

            b. 520 CMR 6.00;

            c. 520 CMR 14.00;

            d. OSHA Standards 29 CFR 1926;

            e. OSHA Standards 29 CFR 1910;

            f. ANSI B30;

            g. MGL c. 82, §40;

            h. MGL c. 82A;

            i. MGL c. 164, §76D; and

            j. 220 CMR 99.00 (Dig Safe)

        3. Applicants for renewal of a 1A, 1B, 1C or 1D license may submit a valid CCO as an alternative to completion of the requirements included in 520 CMR 6.03(1)(b)(5)(a)(1) and (2).

    b) Class 2 (Excavation) Licenses:

1. The minimum number of continuing education hours required for renewal of a 2A, 2B, and 2C license shall be four (4) classroom hours.
2. The minimum topics and texts included as part of the continuing education curriculum for purposes of renewing a 2A, 2B, or 2C license shall include but may not be limited to:
    a. MGL c. 146;
    b. 520 CMR 6.00;
    c. 520 CMR 14.00;
    d. OSHA Standards 29 CFR 1926
    e. MGL c. 82, §40;
    f. MGL c. 82A;
    g. MGL c. 164, §76D; and
    h. 220 CMR 99.00 (Dig Safe).

c) Class 3 (Tower and Electric) Licenses:

1. The minimum number of continuing education hours required for renewal of a 3A or 3B license shall be four (4) classroom hours.
2. The minimum topics and texts included as part of the continuing education curriculum for purposes of renewing a 3A or 3B license shall include but may not be limited to:
    a. MGL c. 146;
    b. 520 CMR 6.00;
    c. OSHA Standard 29 CFR 1926;
    d. OSHA Standard 29 CFR 1910; and
    e. ANSI B30.

d) Class 4 (Specialty) Licenses:

1. The minimum number of continuing education hours required for renewal of a 4A license shall be eight (8) classroom hours.
2. The minimum number of continuing education hours required for renewal of a 4B, 4C, 4D, 4E, 4F, 4G or 4H license shall be four (4) hours.
3. The minimum topics and texts included as part of the continuing education curriculum for purposes of renewing a 4A, 4B, 4C, 4D, 4E, 4F, 4G, or 4H license shall include but may not be limited to:
    a. MGL c. 146;

b. 520 CMR 6.00;
c. 520 CMR 14.00
d. OSHA Standards 29 CFR 1926;
e. OSHA Standards 29 CFR 1910;
f. ANSI B30;
g. MGL c. 82, §40
h. MGL c. 82A;
i. MGL c. 164, §76D; and
j. 220 CMR 99.00 (Dig Safe).

e) Class 5 (Power Linemen Hoisting) Licenses:

1. The minimum number of continuing education hours required for renewal of a 5A license shall be twelve (12) classroom hours allocated as follows:
   a. Backhoes: four (4) classroom hours;
   b. Drill Rigs: four (4) classroom hours; and
   c. Cranes: four (4) classroom hours.
2. The minimum topics and texts included as part of the continuing education curriculum for purposes of renewing a 5A license shall include but may not be limited to:
   a. MGL c. 146;
   b. 520 CMR 6.00;
   c. 520 CMR 14.00;
   d. OSHA Standards 29 CFR 1926;
   e. ANSI B30;
   f. MGL c. 82, §40;
   g. MGL c. 164, §76D; and
   h. 220 CMR 99.00 (Dig Safe).

6. List of Instructors. Each program must provide a list including the names and Massachusetts hoisting machinery license numbers of all continuing education instructors employed by the training facility. Names and applicable license numbers of instructors shall be updated by the training facility operator within 14 days of the employment or the cessation of employment of an instructor by a training facility.

(c) Certificates of Completion.

1. Training facilities shall issue a certificate of completion to licensees who

satisfactorily complete a continuing education course. Upon completion all Massachusetts operators of hoisting equipment shall receive a Department-approved certificate, a copy of which shall be retained by the training facility. It shall be furnished at the request of the Department. Certificates of completion shall contain the following information:

i. Name of participant;

ii. Address of participant;

iii. Massachusetts license grade and number of participant;

iv. Name and address of the institution or organization providing the continuing education/assessment;

v. A legible signature of a Licensee verifying participant has completed the hours as listed on the certificate; and

vi. The license number of the licensee endorsing the certificate.

2. Each program must provide a means to ensure certificate authenticity and shall provide evidence of the means of certification to the Department. Such means shall include:

i. School embossment of certificate ; or

ii. Computer data transfer of program participants to the Department; or

iii. Signature verification; or

iv.Numbered certificates and a list of corresponding licensees.

(d) Program instructors who are approved to conduct continuing education programs shall keep uniform records of attendance of licensees and have those records readily accessible to inspectors of the Department upon request. They shall be responsible for the security and retention of all uniform certificates and the proper issuance thereof. Instructors shall verify by signature that participants in continuing education programs have satisfactorily completed the necessary training.

(e) Falsification of Documents. The falsification of attendance records or fraudulent issuance of certificates of completion by any licensee shall be grounds for initiating formal proceedings under M.G.L. c. 146 section 59 and c. 30A.

(2) License Renewal

(a) Subsequent renewals of any license other than apprentice licenses that expires in an even year shall expire on the next anniversary of the licensee's date of birth occurring in an even year. Subsequent renewals of any license other than an apprentice license that expires in an odd year shall expire on the next anniversary of the licensee's date of birth occurring in an odd year.

(b) Renewals of licenses shall be granted upon submission of required documentation pursuant to 520 CMR 6.02(3).

(3) Inactive Status.

(a) Any operator of hoisting machinery who is not presently employed in the Commonwealth and is unable to obtain the required continuing education necessary to renew his license may request that his license be placed in inactive status until

such time that the continuing education requirements are fulfilled. Such request shall be made in writing to the Chief of Inspections-Mechanical and shall include the required renewal fee.
(b) Operators holding a license on inactive status shall not be authorized to operate hoisting machinery for the time period that the license is inactive.
(c) A determination by the Department that a licensee may return to active status shall be made following the Department's receipt of a written request by the licensee to return to active status, the required renewal fee, and a certificate of completion.

(4) Expiration. Licenses not renewed on or before the expiration date shall become void, and shall after one year be reinstated only by re-examination of the licensee in accordance with 520 CMR 6.02 (2) (d). This provision does not apply to licenses which are considered in inactive status.

6.04: Apprentice licenses

The Department may issue an apprentice license to currently unlicensed individuals who are registered as apprentices at a training facility and submit proof of registration with the Department of Labor and Workforce Development pursuant to M.G.L. c. 146, §53A. The apprentice license shall allow for operation of hoisting equipment during the training period, provided that the holder operates the hoisting machinery only while under the direct guidance of a duly licensed person. The apprentice license shall be kept on the person of the apprentice licensee at all times during the operation of hoisting equipment and shall be valid for the term of registration with the Department of Labor and Workforce Development.

6.05 Training Facilities:

(1) All individuals or organizations seeking approval to operate a training facility offering courses limited solely to apprentice licensee training courses and not continuing education shall submit a list including the names and Massachusetts hoisting machinery license numbers of all instructors employed by the training facility.

(2) Enforcement Date. In order to provide adequate time for individuals and organizations to implement these regulations, the Department shall begin enforcement of 520 CMR 6.05 on April 1, 2009.

6.06 : Public Utility Companies

(1) Public utility companies which have self- propelled truck mounted cranes, derricks and similar hoisting equipment which is used for the maintenance and construction of their own equipment and who have at least one supervisor who holds an unrestricted 1A-2A-3A-4A license issued by the Department and such supervisor is designated as the responsible person in charge of hoisting equipment may be exempted from the provisions of M.G.L. c. 146, 53 provided the public utility company operates an approved in-service training program.

a) The in-service training program may be subject to audit by three district engineering inspectors on a periodic basis.

b) Upon completion of the in-service training program, the public utility

company shall issue a permit to each trained and certified person which shall contain:

1. a photograph of the permit holder;
2. a list of the specific hoisting equipment the permit holder has been qualified by the public utility company to operate; and
3. the signature of the supervisor(s) who holds an the applicable Massachusetts Hoisting license for all the equipment used by the company.

c) Permit holders shall operate public utility company equipment only while on property owned by the public utility company and shall carry the permit on their person at all times while operating hoisting machinery.

6.07: Operating Procedures

(1) All hoisting machinery shall be operated in accordance with the manufacturer's specifications. Prior to operation, the operator shall perform the following:

(a) Maintenance. Maintenance, repair and refueling shall be done when the machine is inoperable and secure.

(b) Required Inspections. Visual inspection shall be made daily of wire ropes, bearings, gears, friction clutches, brakes, chain drives and other parts subject to wear on all hoisting equipment to insure against development of unsafe conditions. A daily log sheet in accordance with 29 CFR 1926 and 29 CFR 1910 shall be available to the Department during the useful life of the machine.

(c) Additional Requirements.

1. A written and signed record of all inspections shall be kept and made available at the site for examination by the Department.

(2) The operator shall operate only when fully attentive. Operators shall not operate equipment erratically and/or under the influence of alcohol or drugs.

(3) Prior to operating hoisting equipment with a rotating superstructure, safety procedures such as the erection of barricades, warning lines or other approved procedures shall be used to prevent entry into the swinging superstructure's radius.

(4) All controls shall be tested by the operator prior to operating the hoisting equipment. If any controls are found to be functioning improperly, the operator shall adjust or repair the controls before the equipment is used.

(5) Prior to starting any hoisting equipment, the operator must make a complete walk-around the equipment to verify people are clear of the equipment, and that it is in a safe condition.

(6) Operators shall respond only to signals given by a signal person.

(7) The operator shall be responsible for those operations under his direct control.

(8) When there is any doubt as to the safety of any action, the operator shall have the authority to cease operation of equipment until safety has been assured.

(9) The operator is responsible for securing any unattended hoisting equipment.

(10) If power fails during operation of any hoisting equipment, the operator shall secure the machine and comply with 520 CMR 6.06(10) prior to leaving the equipment. When practical, suspended loads shall be landed under brake control.

(11) At no time shall persons work under a boom or a load suspended thereon.

(12) All manufacturer's load charts and operation manuals shall be kept in the hoisting equipment.

(13) Prior to any excavation, DIG SAFE and other utilities shall be notified. The operator shall verify the DIG SAFE number prior to beginning operations.

6.08: Special requirements for cranes, derricks, pile drivers, excavating machines, fork lifts, and hoists.

(1) Special Requirements for Cranes

a) Loading. Material moving, handling or hoisting equipment shall be loaded in accordance with the manufacturer's specifications.
   1. Manufacturers' load-rating plates or load charts shall be attached to all load-hoisting equipment in clear view of the operator.
   2. Rating plates or load charts for boom cranes shall clearly indicate the safe load for maximum and minimum positions of the boom and for at least two intermediate positions.

b) Boom Stops. Devices to prevent the boom from falling over backward shall be provided on cranes. Cable boom stops by themselves shall not be considered as adequate for this purpose.

c) Speed Controls and Stops. Hoisting equipment operating on rails, tracks or trolleys shall be equipped with speed controls and shall have positive stops or limiting devices to prevent overrunning safe limits.

d) Equipment Modifications. Any modification made to hoisting machinery shall maintain at least the same factor of safety as the original designed equipment. A record of the differences between the unmodified machinery and the modified machinery shall be maintained by the owner of the machinery and furnished to the Department upon request. All modifications shall be done with the manufacturer's written approval.

e) Protection of Operator. The operator of material handling and moving equipment when exposed to overhead hazards or the elements, shall be protected with a cab or equivalent covering affording adequate protection but which shall not cut off his vision of the load movements. All windows in cabs shall be of safety glass, or equivalent, that introduces no visible distortion that will interfere with the safe operation of the machine.

f) Required Presence. Operators of material moving, handling or hoisting equipment shall remain at the controls while the load is suspended, except in

cases where loss of power occurs in which case operators shall act pursuant to 520 CMR 6.07(11). The operator of the machine shall not leave the machine while the master clutch is engaged.

g) Erection or Dismantling. Crane erection or dismantling shall be performed in accordance with the manufacturer's specifications and under the supervision of his representative or other persons experienced in erection and/or dismantling of this type of equipment.

h) Factor of Safety. All parts of the crane and supports shall be designed, constructed and maintained to withstand all stresses resulting from intended use with a safety factor of not less than 2.0.

i) Capacity Schedule. Each crane model shall contain a schedule of load capacities in the operator's station at all times.

(2) Special Requirements for Derricks

Required Inspection. Guys, cable clamps and other rigging shall be visually checked at the beginning of each work day and before making any lifts that are near the capacity of the rig or as otherwise required by the manufacturer

a) Frequent checking by a duly licensed person of lead cables and mast foot blocks shall be performed to insure that cables are not crossed or fouled.

b) Lead line blocks shall be checked frequently to insure that they are properly secured. Leads shall be so arranged as to minimize tripping hazards.

(3) Special Requirements for Pile Drivers.

a) Inspection. All pile driving equipment shall be inspected daily before the start of work by a licensed operator of the equipment and all unsafe conditions and defective parts shall be corrected before beginning operations.

b) Driver Not in Use. When the pile driver is not in use, the hammer shall be chocked or blocked in the leads or lowered to the ground.

c) Temporary Interruption. The operator of every pile driver shall remain at his post when the driving is interrupted until the hammer has been chocked or blocked in the leads, or has been lowered and is resting on a driven pile or on the ground.

(4) Special Requirements for Fork Lifts. Only a duly licensed operator or apprentice licensee under the direct supervision of a duly licensed operator shall operate a fork lift. No fork lift shall be loaded beyond its capacity rating.

a) Brakes. Every power operated fork lift shall be equipped with adequate wheel brakes.

b) Operation. No fork lift shall be operated at unsafe speeds.

(5) Special Requirements for Excavating Machines, including backhoes and front end loaders.

a) Dig Safe. Prior to any excavation Dig Safe and other utilities must be notified.

b) Protection of Operator. Where the operator of an excavating machine may be exposed to the elements or overhead hazards, a suitable equipped cab for protection against such conditions shall be provided.

c) Operation. Excavating machines shall be operated by a licensee or an

apprentice licensee under the direct supervision of a duly licensed operator.

1. S.A.E. hand signals shall be used with excavating machinery.
2. No person except the operating crew or apprentice licensee operating under the direct supervision of a duly licensed operator shall be permitted on an excavating machine while it is in operation.
3. No person other than the pitman and excavating crew shall be permitted to stand within range of the back of an excavator or backhoe or within range of the swing of the bucket while the shovel or backhoe is in operation.
4. Excavating machinery shall not be allowed to straddle an open trench.

6.09 : Classification of licenses; qualifications

(1) CLASS 1 - HOISTING

(a) 1A Prerequisites:

1. The applicant shall meet the prerequisites as listed in 520 C.M.R. 6.02.
2. The applicant shall display knowledge of the crane operator NIOSH hand signals.
3. The applicant must be able to read and comprehend load charts and manufacturer's specifications.

(b) 1A Operators may operate:

1. Operation of all friction clutch machines and all derricks (including guy derricks, stiff legs, Chicago booms, gin poles);
2. Lattice boom machinery and may also require a 3A license in accordance with 6.09 (3)(a);
3. All wire rope machines;
4. All equipment listed in classes 1B and 1C;

(c) 1B Prerequisites:

1. The applicant must meet the prerequisites as listed in 520 C.M.R. 6.02.
2. The applicant shall display knowledge of the crane operator hand signals.
3. The applicant must be able to read and comprehend load charts and manufacturers specifications.

(d) 1B Operators may operate:

1. All equipment having telescoping boom and wire rope;
2. All equipment listed in class 1C;

(e) 1C Prerequisites:

1. The applicant must meet the prerequisites as listed in 520 C.M.R. 6.02.
2. The applicant must be able to read and comprehend load charts and manufacturer's specifications.

(f) 1C Operators may operate:

1. Equipment with hydraulic telescoping booms and any other hydraulic equipment designed for the purpose of hoisting, excluding those with wire rope hoist lines;

(g) 1D Prerequisites:
The applicant must meet the prerequisites as listed in 520 C.M.R. 6.02.

(h) 1D Operators may operate:
1. General warehouse forklift equipment.

(2) CLASS 2 – EXCAVATING
(a) 2A Prerequisites:
1. The applicant must meet the prerequisites as listed in 520 C.M.R. 6.02.
2. Knowledge of hand signals for controlling crawler/excavator operations

(b) 2A Operators may operate:
1. All crawler and rubber tired excavators and backhoes;
2. Equipment listed in classes 2B and 2C.;

(c) 2B Prerequisites:
1. The applicant must meet the prerequisites as listed in 520 C.M.R. 6.03.

2B Operators may operate:
1. Combination loader/backhoe machines;
2. Equipment listed in Class 2C;

(d) 2C Prerequisites:
1. The applicant must meet the prerequisites as listed in 520 C.M.R. 6.03.

2C Operators may operate:
1. Front end loaders;
2. Uni-loaders
3. Skid Steer loaders

(3) CLASS 3 – TOWER/ELECTRIC AND AIR.
All licensees holding a 3A license prior to this regulation shall be converted to a 3B3C, unless they also hold a 1A license. All licensees who hold a 1A3A license may continue to hold the 1A3A license.

(a) 3A Operators Prerequisites:
1. The applicant must meet the prerequisites as listed in 520 C.M.R. 6.03.
2. The applicant must be able to read and comprehend load charts and manufacturer's specifications.

(b) 3A Operators may operate:
1. Tower – Derricks and Self-erecting Tower Cranes
2. Persons holding a 1A3A may also operate a tower/derrick crane.

(b) 3B Operators may operate: – Electric driven overhead hoists

(c) 3C Operators may operate: – Air Driven hoists

(4) CLASS 4 - SPECIALTY. Operators may operate the equipment listed in 4(a)-(g) below:

(a) 4A: 4B- 4G
(b) 4B: Drill Rigs
(c) 4C: Pipeline Side booms
(d) 4D: Concrete Pumps
(e) 4E: Catch Basin Cleaner
(f) 4F: Sign Hanging Equipment
(g) 4G: Specialty Lawn Mower

(5) CLASS 5 – Power lineman Hoisting License

(a) Operators with this class of license may operate hoisting equipment listed in (5)(b), below, while engaged in the employment of an electrical utility company or subcontractor servicing electrical utilities.

(b) 5A Operators may operate the following equipment owned by their employer:

1. Backhoes
2. Drill rigs (used for utility poles)
3. Cranes with telescoping booms with cable

6:10 Special Requirements for All Operation of Hoisting Machinery; Accident Reporting-

(1) Operators of hoisting machinery shall cease operating if ordered by the Department to do so. Conditions which shall warrant immediate cessation of operation may include:
   (a) A fatality or serious injury;
   (b) Failure to use a protective system or safeguard in accordance with this regulation or ineffective use of a protective system; or
   (c) Any other condition that constitutes a serious threat to life, limb, or property as determined by the Department.

(2) Operators of hoisting machinery shall immediately surrender their hoisting license if ordered by the Department to do so.

(3) Any person found operating hoisting machinery without a license, apprentice license or proper classification of hoisting license according to 520 C.M.R. 6.08 shall immediately cease operating. Said person shall make his identity known to the Department with a valid motor vehicle driver's license.

(4) Serious Injury/Investigation.
   (a) Notification. Any serious injury or mechanical failure at a site where hoisting machinery is operational must be reported by the operator to the State Police by the licensee operating the hoisting machinery involved in the injury within one (1) hour from the time that the serious injury or mechanical failure occurred or was discovered. The hoisting machinery shall not be moved from the site of the serious injury until approval is granted by a state inspector. The only exceptions to this requirement is for preservation of life and property, the removal of injured persons or bodies. The hoisting machinery and area surrounding the hoisting machinery shall not be disturbed, cleaned, or altered in any way that will impede the investigation. The Department shall

investigate the incident pursuant to M.G.L. c. 146, §§53, 54A and55.

(b) Investigation.

1. In the event that a serious injury or mechanical failure incident occurs as a result of a malfunction of hoisting machinery or a serious injury incident results in major damage to the hoisting machinery or any of its component systems, the hoisting machinery shall be immediately shut down and secured by the operator until a state inspector has completed an investigation. No person shall move or alter the serious injury incident scene or the hoisting machinery, except to remove the victim(s), until the state inspector has determined that the hoisting machinery is safe. If a serious injury incident occurs as the result of the malfunction of the hoisting machinery or a serious injury results in major damage to the hoisting machinery or any of its component systems, the incident shall be reported to the State Police and a report shall be submitted to the Department within 48 hours.

2. In the event of a serious injury incident/mechanical failure, the operator of the hoisting machinery shall be responsible for securing the hoisting machinery. The operator and owner of the hoisting machinery shall be accessible to the Department

6:11: License suspension; revocation; appeals

(1). The Commissioner, Chief of Inspections-Mechanical, or any District Engineering Inspector may deny, revoke or suspend depending on the severity of the offense and following a hearing held in accordance with M.G.L. c. 30A and 801 CMR 1.02

(2). Where the Commissioner or Chief determines that circumstances indicate the immediate suspension or revocation of a license to operate hoisting machinery is necessary for the preservation of the public health or safety, he may order such suspension or revocation pending the outcome of a hearing held in accordance with M.G.L. c. 30A and 801 CMR 1.02.

(3). A Licensee aggrieved by the action taken by the Commissioner, Chief of Inspections-Mechanical or a District Engineering Inspector, pursuant to chapter 146, § 53 in suspending or revoking their license to operate hoisting machinery may, within 10 days, appeal from such decision to the Chief who shall appoint three inspectors of the Department, or himself and two inspectors, to act together as a board of appeal. The decision of a majority of the members of the board of appeal shall be final and may be appealed in accordance with G. L. c. 30A. Any license covered under 520 C.M.R. 6.00 may be revoked or suspended for the following reasons:

(a) False or misleading information on application for examination or license

renewal.

(b) Operating hoisting machinery under the influence of alcohol or drugs.
(c) Failure to pay excise tax or other taxes.
(d) Failure to report accidents as required by the Department of Public Safety.
(e) Failure to report a fatality as required by the Department of Public Safety.
(f) Operating in an unsafe manner.
(g) Failure to comply with any provision of this regulation;
(h) Failure to comply with DIGSAFE laws and regulations.
(i) Failure to comply with M.G.L. c. 146, §§53-56.

(4). Applicants for licensure applying for a license to operate hoisting equipment following the revocation of a prior license to operate hoisting equipment may at the discretion of the Chief, in consultation with the Commissioner, be reexamined in accordance with the provisions of 520 CMR 6.02(d) and (e).

(5). Applicants for licensure applying for a license to operate hoisting equipment following the suspension of a prior license to operate hoisting equipment may at the discretion of the Chief, in consultation with the Commissioner be reexamined in accordance with the provisions of 520 CMR 6.02

6:12: Variance Procedure

Variance.

a. Any person who believes that full compliance with 520 CMR 6.00 is overly burdensome may apply to the Department for a variance from 520 CMR 6.00. The burden is on the applicant to demonstrate in writing to the Department that the granting of the variance would not compromise public safety or otherwise undermine the purpose of 520 CMR 6.00. Application for a variance shall be made on a form provided by the Department for this purpose and shall contain such information as is required by the Department, and shall be signed by the applicant.

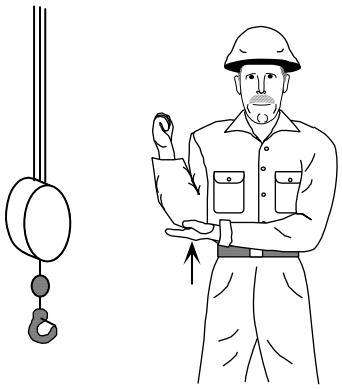
b. Upon receipt of an application for a variance, the Commissioner, or his designee may:
   i. Grant the application with whatever conditions are deemed appropriate; or
   ii. Deny the application without a hearing;

c. Any person aggrieved by this decision may file a request for an adjudicatory hearing with the Department within 30 days of receipt of the decision. All adjudicatory hearings shall be held in accordance with the provisions of M.G.L. c. 30A and 801 CMR 1.02. Any person aggrieved by a decision made after an adjudicatory hearing may appeal to the Superior Court in accordance with M.G.L. c. 30A, § 14.

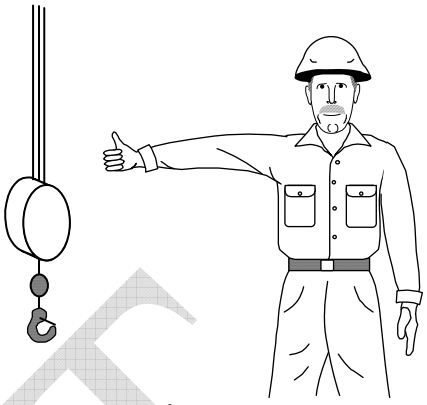
REGULATORY AUTHORITY
520 C.M.R. 6.00: M.G.L. c. 146, 53 through 54A.

Appendix 1
CRANE HAND SIGNALS

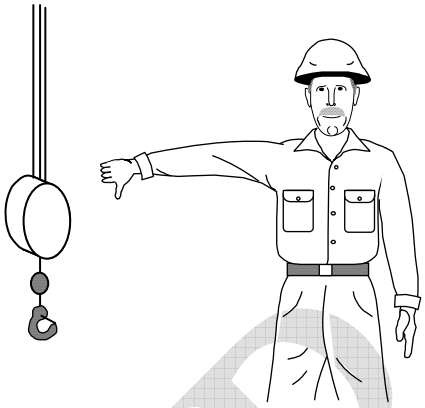
1. NIOSH hand Signals for Crane Operation



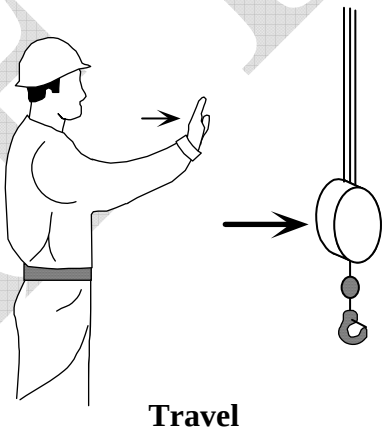
Use Whipline
(Auxiliary hoist) Tap elbow with one hand then use regular signals



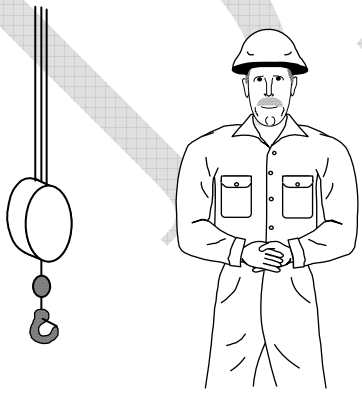
Raise Boom
Arm extended, fingers closed, thumb pointing upward.



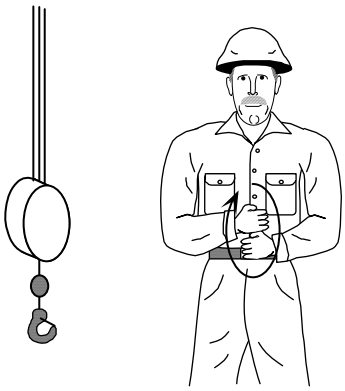
Lower Boom
Arm extended, fingers closed, thumb pointing downward



Travel
Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.

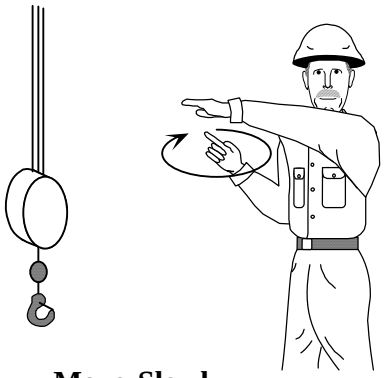


Dog Everything
Clasp hands in front of body



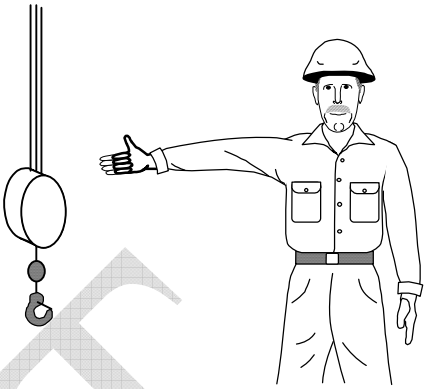
Travel
(Both tracks) use both fists in front of body, making circular motionabout each other, indicating direction of travel, forward or backward (for crawler cranes only)

(1) NIOSH hand Signals for Crane Operation



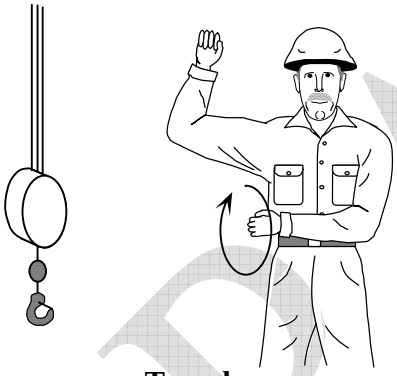
Move Slowly

Use one hand to give any motion signal and place other hand motionelss in front of hand giving the motion signal (as shown)



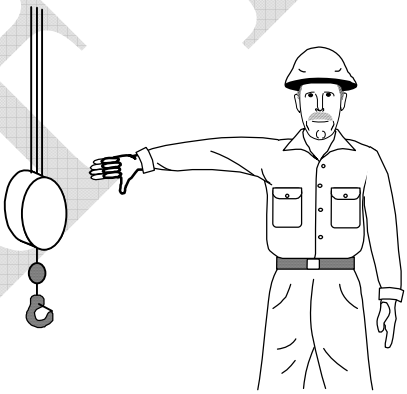
Raise The Boom And Lower The Load

With arm extended, thumb pointing up, flex fingers in and out as long as load movement is desired



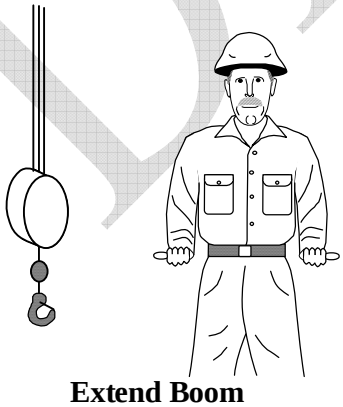
Travel

(one track) Lock the track on the side indicated by raised fist. Travel opposite track in direction indicated by circular motion of other fist, rotated vertically in front of body (for crawler cranes only)



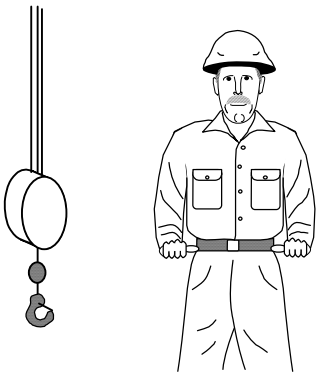
Lower The Boom And Raise The Load

With arm extended, thumb pointing down, flex fingers in and out as long as load movement is desired



Extend Boom

(Telescoping Booms) Both fists in front of body with thumbs pointing outward



Retract Boom

(Telescoping Booms) Both fists in front of body with thumbs pointing toward each other.

6.08: continued

(1) NIOSH hand Signals for Crane Operation

Retract Boom

(Telescoping Boom). One hand signal. One fist in front of chest, thumb pointing outward and heal of fist tapping chest

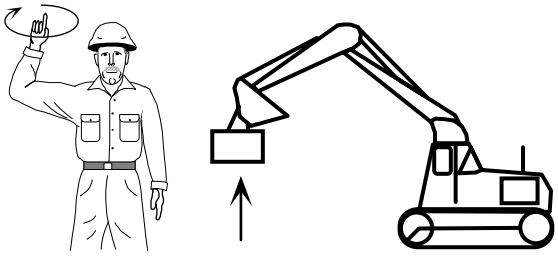
Extend Boom

(Telescoping Boom). One hand signal. One fist in front of chest with thumb tapping chest.

Appendix 2

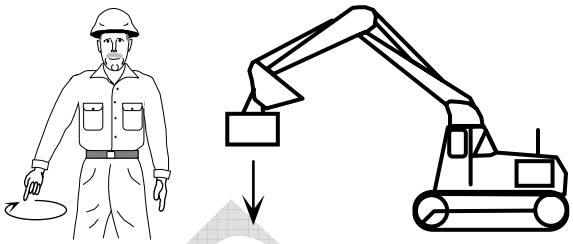
EXCAVATOR HAND SIGNALS

(2) SAE Crawler / Excavator Hand Signals



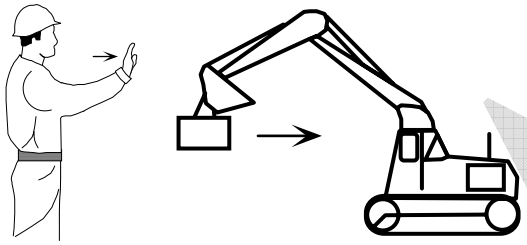
Raise Load Vertically

With forefinger vertical pointing up, move hand in small horizontal circular motion



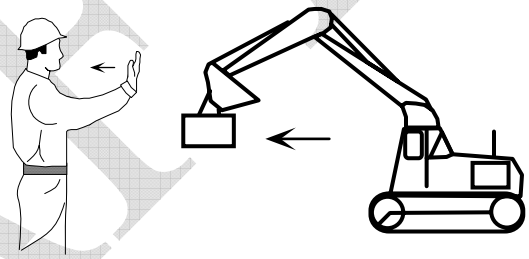
Lower Load Vertically

With forefinger vertical pointing down, move hand in small horizontal circular motion



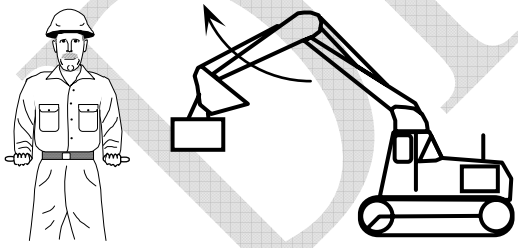
Move Load In Horizontally

With either arm extended, hand raised and open toward direction of movement, move hand in direction of required movement.



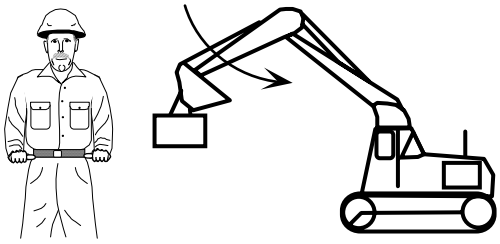
Move Load Out Horizontally

With either arm extended, hand raised and open toward direction of movement, move hand in direction of required movement.



Move Arm Outward

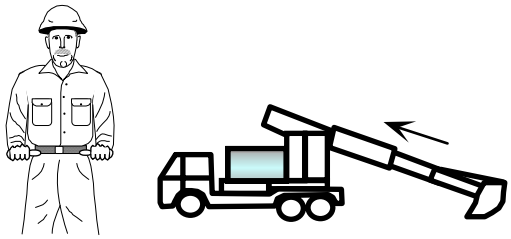
With both hands clenched, point thumbs outward



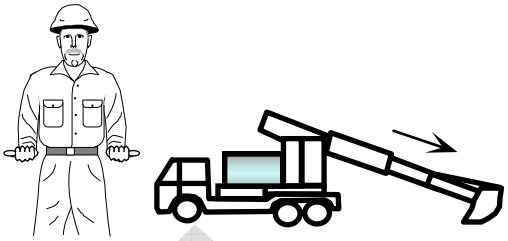
Move Arm Inward

With both hands clenched, point thumbs inward

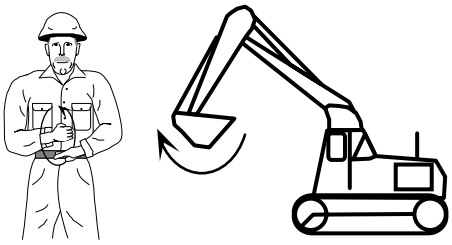
(2) SAE Crawler / Excavator Hand Signals



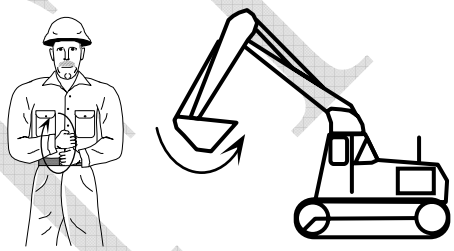
Retract Telescopic Boom
With both hands clenched, point thumbs in



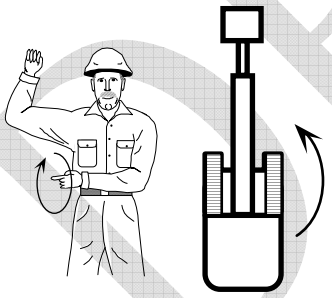
Extend Telescopic Boom
With both hands clenched, point thumbs out



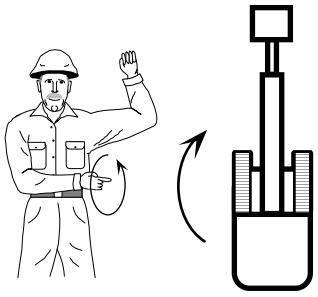
Open Bucket
Hold one hand open and stationary, Rotate other hand in small vertical circle with longfinger pointing horizontally at open hand



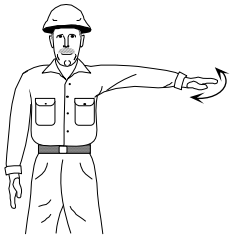
Close Bucket
Hold one hand closed and stationary, Rotate other hand in small vertical circle with longfinger pointing horizontally at closed hand



Turn
Raise forearm with closed hand indicating inside of turn. Move other other hand in circular motion point the direction of track or wheel rotation.

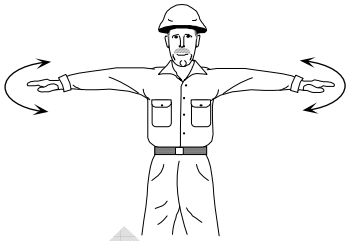


Turn
Raise forearm with closed hand indicating inside of turn. Move other other hand in circular motion point the direction of track or wheel rotation.



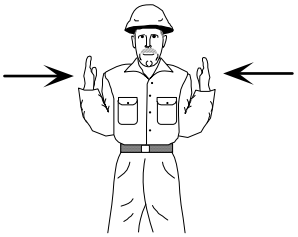
Stop

With either arm extended laterally, hands open downward, move arm back and forth



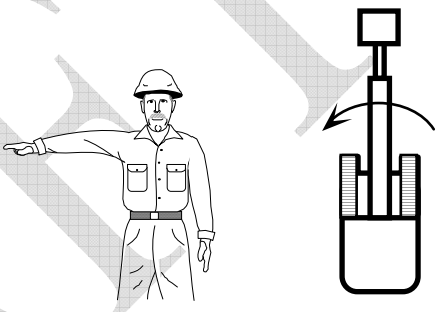
Emergency Stop

With both arms extended laterally, hands open downward, move arms back and forth



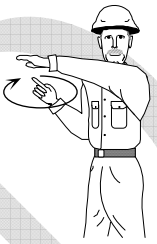
This Far To Go

With hands raised and open inward move hands laterally, indicating distance to go.



Swing (Left or Right)

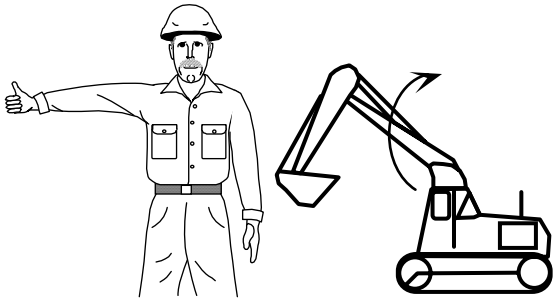
With either arm extended horizontally point with forefinger to direction of swing rotation. (Swing left shown)



Move Slowly

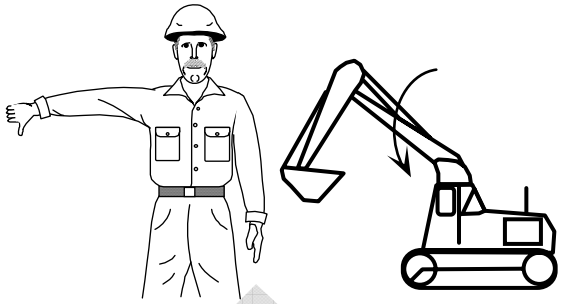
Place one hand motionless in front of hand giving motion signal. (Raise load slowly is shown)

(2) SAE Crawler / Excavator Hand Signals



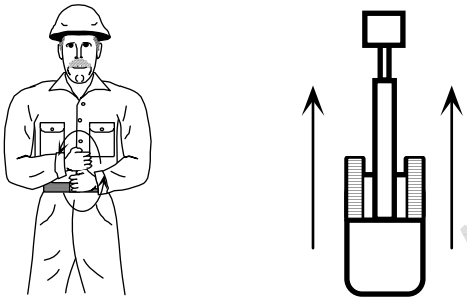
Raise Boom

With either arm extended horizontally, fingers closed, point thumb upward.



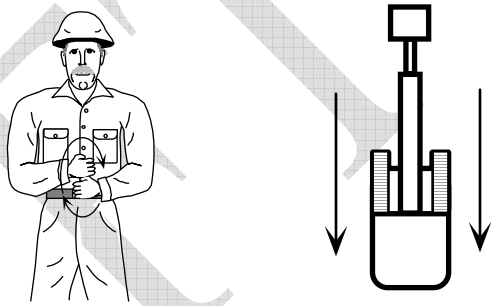
Lower Boom

With either arm extended horizontally, fingers closed, point thumb downward.



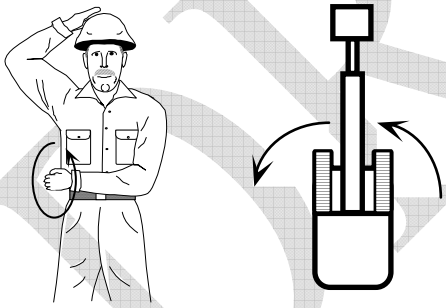
Travel

Move fists in vertical circle about each other in idrection of track or wheel rotation.



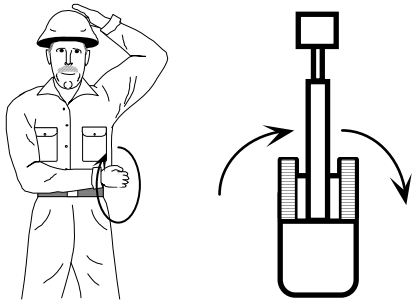
Travel

Move fists in vertical circle about each other in idrection of track or wheel rotation.



Counter Rotate

Place hand on head indicating side of reverse track or wheel rotation. Move other hand in vertical circle indicating forward rotation of other track or wheel.



Counter Rotate

Place hand on head indicating side of reverse track or wheel rotation. Move other hand in vertical circle indicating forward rotation of other track or wheel.